PLANNING, PLANTING, AND STORING YOUR ROOT CELLAR GARDEN

with Teri Page of Homestead-Honey.com

Introduction

Thank you Melissa! As Melissa mentioned, I'm Teri Page of Homestead Honey. I live and garden in Northeast Missouri, which is zone 5B. My family lives on a 20 acre off the grid homestead that we built from scratch, and I tend to a large garden, a food forest of perennial bushes, native edibles, and an orchard.

I love growing food, and it's a priority of mine to grow and consume local, organic fruits and vegetables. When I lived in the Willamette Valley of Oregon, I was able to garden year round and access additional local, organic food at the natural food store, farmer's market, or winter CSA, but when we moved to Missouri, I found it more difficult. Here in our rural Missouri town, we have a farmer's market that runs May – October; after that, you can say goodbye to locally sourced produce, unless you grow it yourself.

Many of my neighbors solve this problem by canning large quantities of food, and this is certainly one solution. However, I'm one of those rare homesteaders that really dislikes canning! Canning is labor intensive and energy intensive, and preserving the bulk of our food with it is not something that fits well into our busy life. Instead, we reserve our canning efforts for jams, sauces, and condiments, and focus on storing fresh food in our homestead root cellar.

A different way of gardening...

To make sure I have access to locally grown food year-round, I have had to shift my gardening priorities to come up with the alternative gardening paradigm – a root cellar garden - that I'll share with you today.

>> First, I'm going to talk about how I plan my garden to anticipate my family's year-round needs.

>> Next, I'll talk about what we plant and when.

>> And finally, I'll touch on how we store our food so it stays fresh for months.

Planning a Root Cellar Garden

So, as I mentioned before, I really need to think about when food is available in my rural community. We can purchase locally grown, chemical-free (not certified organic) food at the farmer's market from May through October, and sometimes into November. During that same window, we seek out opportunities to buy food in bulk from local orchards, farmers, and our Amish neighbors.

From late November through April, it is extremely difficult to find fresh, locally grown food in my area. So anything I can do to get a jumpstart on the gardening season or to extend my growing season will help save my family money and make sure we are getting healthy food.

My overall garden plan is to:

1) Grow a large spring garden, using low tunnels and plastic to get an early start on planting. This year I sowed kale, lettuce, and other greens in late February.

2) Plant crops that will overwinter under row cover and plastic, such as kale, lettuce, and spinach.

3) Plant a storage crop garden, focusing on foods that I can harvest in late fall and store in my root cellar for winter eating. I go "food shopping" right in my backyard, enjoying foods like sweet potatoes, squash, onions, beets, carrots, garlic, apples, and turnips throughout the winter months.

I do still plant a rather large summer garden and try to preserve as much food as possible, but I know I can supplement with food from the farmer's market so I'll give garden space priority to my storage crops.

Succession Planting

This multi-season approach to gardening requires a lot of planning and juggling of beds. I spend time with paper and pencil mapping out each garden bed and deciding how to best utilize the space I have available. I will always practice succession planting, or the act of following one plant with another.

Succession planting is especially useful if you want to store a large amount of food in a root cellar, and also enjoy fresh harvests. For instance, if I plant potatoes in the spring, I will have an ample crop to enjoy all summer long. I will want to plant a second, or maybe even a third crop of potatoes for storage.

The same goes for beets or carrots. I like to space out my planting every 14 days or so. I'll focus on quick growing, fresh eating carrots and beets for the summer months, and then shift to storage varieties in the late summer into the fall.

What do we grow in our Root Cellar Garden?

The best gardens are filled with food your family will actually eat, and a root cellar garden is no exception! If you know that your family will turn up their noses at turnips, don't plant them, even if they are easy to grow and store! Similarly, if you experience crop failures each year with a certain type of vegetable, you may not want to base your plan around that crop.

In general, the foods that we grow for storage in our root cellar are:

- Potatoes
- Sweet potatoes
- Winter squash
- Onions
- Garlic
- Beets
- Carrots
- Kohlrabi
- Rutabaga
- Cabbage
- Chinese Cabbage
- Turnips

Many seed companies will designate good storage varieties, and it's worth seeking these keepers out.

We also u-pick at a local orchard and bring home bushels of Arkansas Black apples for storage. Throughout the summer, I will chat with local farmers and make arrangements to purchase any bulk quantities of storage crops that they may have available at the end of the growing season. This has worked particularly well for winter squash, turnips, and Chinese cabbage.

Planting your Root Cellar Garden

The actual act of planting your root cellar garden is no different than any other crop – you want to pay attention to soil health and fertility that will meet the needs of the various crops you are growing. Some storage crops, like winter squash, are heavy feeders, meaning that you should amend the garden bed with plenty of organic matter, and consider a top-dressing mid-season.

The challenge of planting a root cellar garden is that many of the crops – particularly root vegetables such as carrots, beets, and turnips – need to be planted mid-summer. (Of course note that I'm speaking from my experience growing these crops in the Midwest, zone 5B. Your location may have different timing.) In the heat of the summer, you will face challenges from extreme heat, drought, and pest pressure.

Let's talk about each of these challenges and what you can do to mitigate them.

Heat – The heat and humidity that make the Midwest such a great place to grow food also makes it difficult to start cool weather crops in the heat of summer. I typically direct sow root vegetables in late July through August – the hottest months of the year!

You can help these crops along by creating shade, either with a physical barrier like a shade cloth, or by planting on the north side of tall plants. For instance, you could

plant a row of carrots on the north side of a row of peppers. The carrots will still get sun, but the peppers will help create a bit of natural shade.

Certain plants can be started indoors – broccoli, kale, and cabbage for instance – and the established plants transplanted into your garden.

Drought – Consistent, even moisture is essential to seed germination, and plant health, so you'll want to come up with an irrigation plan for times when it does not rain. We typically experience a summer drought of 3 -5 weeks in the late summer, so we need to hand water our plants, sometimes 2 or 3 times a day. If you have an irrigation system in place, your cool weather crops will thank you!

Pest Pressure - Late summer is a great time to be a pest, but a not-so-great time to be a young seedling! Consider using row cover to protect young plants from pests. I have the hardest time growing Brassicas in the late summer because of cabbage worms. Covering the plants with row cover will help prevent the moths from laying eggs on the plants.

Storing Food: Root Cellaring Basics

If all has gone well, by the first frost, you'll have a garden full of vegetables that you can enjoy all winter long, if stored properly. While in mild climates, you can store many vegetables just by leaving them in the ground, we usually lift our veggies before the first hard frost and store them in our root cellar.

A root cellar is a traditional food storage method that preserves food by controlling temperature, humidity, and light. While today's modern "root cellar" is your home refrigerator, traditionally, root cellars were built into the ground, often into the side of a hill, and covered with earth.

A few years ago we built our own root cellar and it has become one of the most essential tools on our homestead.

How does Root Cellaring Work?

Root cellars are designed to provide dark, cool, moist environments in which vegetables and other foods can be stored without electricity. But to store food for a long period of time, very specific conditions are required. Let's look at the requirements of a root cellar in more detail:

Temperature - The ideal root cellaring temperature is between 32 and 40 degrees F. Certain foods store better in cold temperatures, others in slightly warmer temperatures. I have a downloadable cheat sheet that I'll share with you that gives you the proper storage conditions for many common storage crops. You can find that here: https://rootcellargardenbonus.getresponsepages.com

Humidity - A very high (90-95%) humidity environment will provide the best storage environment for most leafy vegetables and root crops. A small digital

thermometer that gives a humidity reading or a hygrometer, which measures relative humidity, are great tools to have on hand for root cellaring.

Ventilation - Good ventilation is important in your root cellar, as it helps prevent mold growth and moves ethylene gas out of the cellar.

Each fruit or vegetable will have its own particular temperature and humidity needs. Of course in one root cellar, it is hard to please all the vegetables! Our rule of thumb is to try for an average of the optimal temperatures and humidity. Food may not store as long in non-optimal conditions, but it will still keep for months.

Preparing Food for Storage in your Root Cellar

Successfully keeping food in a root cellar requires a bit of extra care to ensure that the food will remain fresh for months. Here are some guidelines for preparing to store food in a root cellar:

- Pick at the peak of freshness - Fruits and vegetables are ripe when they have fully developed their color, flavor and texture. Ripe produce is best for storing, as well as for other forms of preservation.
- Choose late-maturing crops over early-maturing ones for best storage - Again, this is where seed catalogs are going to be very helpful. Seek out varieties that are late-maturing or specifically designated as keepers.
- Harvest as late in the season as possible, but before the first hard frost - Hard frosts will damage certain crops, so be sure to watch the weather forecast!
- Handle food very gently to avoid bruising - This is very important, as fruits and vegetables with bruises, cuts, or nicks will not store well.
- Properly cure food according to their specific needs
- Store only the best fruit and vegetables; if you see any signs of rot or bruising, eat them fresh or can them instead

The good news is that you can save yourself work by *not* washing the fruits and vegetables that you plan to cellar. Instead, simply brush off extra dirt and store the produce in crates, mesh bags, baskets, or any other container that allows for ample air circulation.

Carrots, beets and other root vegetables may benefit from being stored in buckets with layers of sawdust sandwiching layers of vegetables.

What if you don't have a Root Cellar?

Great question! We didn't at first either, until we built one (you can find more information about building a root cellar on my website https://Homestead-Honey.com). Until it was ready, we stored food in the coldest part of our house,

which was a crawl space in our mudroom. Basements are also fabulous places to store food, but you do need to be mindful of rodents and other pests.

Now, get the seeds and supplies you need, and start planning (or planting) your root cellar garden! And remember, you can download that ideal storage conditions info sheet at https://rootcellargardenbonus.getresponsepages.com

Thanks for watching!

Teri Page

https://homestead-honey.com